

January 19, 2018



U.S. Department  
of Transportation

East Building, PHH-30  
1200 New Jersey Avenue S.E.  
Washington, D.C. 20590

**Pipeline and Hazardous  
Materials Safety Administration**

DOT-SP 14832  
(THIRD REVISION)

**EXPIRATION DATE: 2021-02-28**

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Trinity Industries, Inc.  
Dallas, TX
2. PURPOSE AND LIMITATIONS:
  - a. This special permit authorizes the manufacture, mark, sale and use of DOT 105 and DOT 112 specification tank cars with a welded manway protective housing for use in transportation of hazardous materials that are toxic-by-inhalation, subject to the limitations stated below. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
  - b. The safety analyses performed in development of this special permit only considered the hazards and risks associated with transportation in commerce. The safety analyses did not consider the hazards and risks associated with consumer use, use as a component of a transport vehicle or other device, or other uses not associated with transportation in commerce.
  - c. In accordance with 49 CFR 107.107(a), party status may not be granted to a manufacturing permit. These packagings may be used in accordance with 49 CFR 173.22a.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.

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4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 172.203(a) in that the marking requirement is waived and § 173.31(e)(2)(iii) and § 179.100-12(c) in that alternative packaging is authorized.
5. BASIS: This special permit is based on the application of Trinity Industries, Inc. dated September 11, 2017, submitted in accordance with § 107.105 and the public proceeding thereon.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

<b>Hazardous Materials Description</b>			
<b>Proper shipping name</b>	<b>Hazard Class/Division</b>	<b>Identification Number</b>	<b>Packing Group</b>
Acetone cyanohydrin, stabilized	6.1	UN1541	I
Acrolein, stabilized	6.1	UN1092	I
Allyl alcohol	6.1	UN1098	I
Ammonia, anhydrous	2.2	UN1005	N/A
Bromine	8	UN1744	I
Chlorine	2.3	UN1017	N/A
Chloropicrin	6.1	UN1580	I
Chlorosulfonic acid	8	UN1754	I
Dimethyl sulfate	6.1	UN1595	I
Dinitrogen tetroxide	2.3	UN1067	N/A

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Hazardous Materials Description			
Proper shipping name	Hazard Class/ Division	Identi- fication Number	Packing Group
Ethyl chloroformate	6.1	UN1182	I
Ethylene oxide	2.3	UN1040	N/A
Hexachlorocyclopentadiene	6.1	UN2646	I
Hydrocyanic acid, aqueous solutions	6.1	UN1613	I
Hydrogen chloride, anhydrous	2.3	UN1050	N/A
Hydrogen cyanide, stabilized	6.1	UN1051	I
Hydrogen fluoride, anhydrous	8	UN1052	I
Hydrogen sulfide	2.3	UN1053	N/A
Methyl bromide	2.3	UN1062	N/A
Methyl mercaptan	2.3	UN1064	N/A
Nitric acid, red fuming	8	UN2032	I
Nitrosyl chloride	2.3	UN1069	N/A
Phosphorus trichloride	6.1	UN1809	I
Sulfur dioxide	2.3	UN1079	N/A
Sulfur trioxide, stabilized	8	UN1829	I

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Hazardous Materials Description			
Proper shipping name	Hazard Class/ Division	Identi- fication Number	Packing Group
Sulfuric acid, fuming with 30 percent or more free sulfur trioxide	8	UN1831	I
Tetranitromethane	6.1	UN1510	I
Titanium tetrachloride	6.1	UN1838	I
Toxic by inhalation liquid, corrosive, n.o.s. (sulfur dichloride or sulfur monochloride)	6.1	UN3390	I

7. SAFETY CONTROL MEASURES:a. PACKAGING -

(1) For tank cars built before March 16, 2009, packaging described is a DOT specification 105J600W or DOT specification 112J500W constructed under certificates L066115A, L066062C, L06127B, L076118A, L096020A, L076139A, L096047A, L106006A, L106007, L106025, L106030, L096005A, L096037, L086014B and L086015A except that they are equipped with a welded manway protective housing in lieu of a bolted protective housing as specified in § 179.100-12(c). For these cars, the provision in § 173.31(e)(2)(iii) applies and they are authorized for the transportation of Poison Inhalation Hazard materials for a period of 20 years after the date of original construction.

(2) For tank cars built on or after March 16, 2009, packaging described is a DOT 105J600I or a DOT specification 112J500I, as required by regulation,

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except that they are equipped with a welded manway protective housing instead of a bolted manway protective housing as specified in § 179.100-12(c).

(3) All tank cars operating under the terms of this special permit must conform to the Association of American Railroads' Manual of Standards and Recommended Practices, manual C-II, specification S-286 and C-III, Section 2.5 and with the following requirements:

<b>Feature:</b>	<b>Detail:</b>
Puncture Resistance	Tank heads and shells manufactured from either ASTM A516, Grade 70, normalized steel or AAR TC128, Grade B, normalized steel. Each plate-as-rolled must be Charpy impact tested transverse to the rolling direction in accordance with ASTM A20 and in the longitudinal direction in accordance with ASTM A370. The test coupons for testing transverse to the direction of rolling must simulate the in-service condition of the material and must meet the minimum requirement of 15 ft-lb average for three specimens, with no single value below 10 ft-lb and no two below 15 ft-lb at -30 °Fahrenheit. Transverse testing at 50° satisfies this requirement. The test coupons for testing longitudinal to the direction of rolling must simulate the in-service condition of the material and must meet the minimum requirements requirement of 15 ft-lb average for three specimens, with no single value below 10 ft-lb and no two below 15 ft-lb at - 50 °Fahrenheit.
Full-Head Protection	Tank head protection system will comply with § 179.16.
Trackworthiness	Trucks are variable-dampened type, in compliance with AAR M-976 for 286,000 pounds gross weight on rail service.
Pressure Relief Device	Re-closing pressure relief device shall be designed and tested in accordance with § 179.15.

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<b>Feature:</b>	<b>Detail:</b>
Service Equipment Protection	For cars built prior to March 16, 2009, welded and reinforced top fittings protection designed to Trinity Industries, Inc. specifications and complying with Association of American Railroads Manual of Standards and Recommended Practices, Manual C-III, Appendix E, Paragraph 10.2. For cars built on or after March 16, 2009, compliance with § 179.102-3(a) is required.

(4) Gross weight on rail of tank cars operating under this permit may not exceed 286,000 pounds GWR.

(5) The requirements of § 173.24b(a) and the maximum permitted filling limit requirements of § 173.314 apply to shipments made under this special permit.

(6) The quantity of chlorine loaded into the tank car may not exceed 90 tons unless approved by the Associate Administrator for Safety (RRS-1), Federal Railroad Administration at the address shown in paragraph 10. of this special permit.

b. MARKING-

(1) The tank car shall be stenciled "DOT-SP 14832" in letters and materials at least 4" high in a contrasting color as required by § 179.22; or

(2) The manufacturer must install identical permanently mounted identification plates on the inboard surface of the AR and BL body bolster webs. Each plate must be readily accessible for inspection. The plates must be at least 3/32-inch thick and manufactured from corrosion resistant metal. If the tank jacket (flashing) covers the body bolster web and identification plates, identical plates must be installed on the AR and BL corners of the tank in a readily visible location. Additionally, each plate must be stamped, embossed or otherwise marked by an equally durable method in letters 3/16 inch high with the following information (parenthetical abbreviations may be used, and the AAR form reference is to the AAR Specifications for Tank Cars):

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(i) Car builder's Name: Full name of the car builder as shown on the Certificate of Construction (AAR form 4-2).

(ii) Builder's Serial Number (SERIAL NO).

(iii) Certificate of Construction and Exemption Number (CERT NO): The Certificate of construction number under which the car was built and the authorization number if constructed under a special permit (DOT-SP 14832) or other competent authority authorization.

(iv) Tank Specification (SPECIFICATION): The specification to which the tank was built.

(v) Tank Shell Material/Head Material (SHELL MATL/HEAD MATL): ASTM or AAR specification of the material used in the construction of the tank shell and heads.

(vi) Tank Shell Thickness/Tank Head Thickness (Shell Thick/Head Thick): In inches.

(vii) Insulation Material (INSULATION MATL): Generic names of the thermal protection and insulation materials.

(viii) Insulation Thickness (INSULATION THICK): In inches.

(ix) Underframe / Stub Sill Type (UF/SS DESIGN): Stub sill type designation used in the SS-3 inspection database.

(x) Date of Manufacture: (DATE OF MFG): The month and year of construction. If the underframe has a different built date than the tank, show both dates.

(3) When a modification to the tank changes any of the information shown in paragraph 7.b.(1) above, the car owner or the tank car facility making the modification must install an additional variable identification plate on the tank, adjacent to the identification plate specified above and in a visible location, showing the AAR Number (AAR NO) from line 3 of the AAR form 4-2 for the alteration or conversion and showing all items of

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paragraph 7.b. of this special permit that were modified, followed by the month and year of modification.

8. SPECIAL PROVISIONS:

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this special permit for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this special permit.

b. A person who is not a holder of this special permit, but receives a package covered by this special permit, may reoffer it for transportation provided no modification or change is made to the package and it is offered for transportation in conformance with this special permit and the HMR.

c. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation. It must be made available to a DOT representative upon request.

d. A current copy of this special permit must be maintained at each facility where the packaging is manufactured under this special permit. It must be made available to a DOT representative upon request.

e. The provisions of § 179.13(b) apply to cars built under this special permit.

f. The builder of the tank cars authorized under this special permit must develop a program of maintenance and qualification. Any such program must identify areas of inspection for fatigue, corrosion, wear, etc., have a "life cycle" maintenance plan, and be of demonstrable reliability and sensitivity. This program must identify inspection items, inspection methods, acceptance criteria, and inspection frequencies and must have written procedures that ensure that work performed on cars conforms to Federal Requirements. Persons seeking to operate cars built under this special permit must incorporate and acknowledge owner's program of maintenance and qualification in a written, signed document, which must be open to a representative of the U.S. Department of Transportation upon request.



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g. Any of the builder's procedures developed in relation to the car approved by this grant, whether for construction or subsequent modification or examination, must be open to a representative of the U.S. Department of Transportation upon request.

9. MODES OF TRANSPORTATION AUTHORIZED: Rail freight.
10. MODAL REQUIREMENTS: The applicant must notify the Federal Railroad Administration (FRA) of any unusual incident or incidents known to it that occur during the movement of cars built under this special permit. This includes adverse findings related to the welded protective housing during qualification. The FRA may be contacted at:

Federal Railroad Administration  
Hazardous Materials Division  
1200 New Jersey Ave. SE  
W35-331  
Washington, DC 20590  
ATTN: Mark Maday, Staff Director  
202-493-0479, FAX: 202-493-6478  
[mark.maday@dot.gov](mailto:mark.maday@dot.gov)

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
- o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
  - o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
  - o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

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No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)—"The Hazardous Materials Safety and Security Reauthorization Act of 2005" (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 Immediate notice of certain hazardous materials incidents, and 171.16 Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



for William Schoonover  
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Material Safety Administration, U.S. Department of Transportation, East Building PHH-30, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at [http://hazmat.dot.gov/sp\\_app/special\\_permits/spec\\_perm\\_index.htm](http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm) Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: Phemister/Schoonover/NICKS